

REMARKS

The claimed invention uses a fundamentally different approach to retrieve pre-defined portions of content from a web site than that disclosed by the prior art applied by the Examiner. The claimed invention uses “regular expressions” to locate and retrieve pre-defined portions of a pre-selected web site. By contrast, the prior art applied by the Examiner does not disclose use of “regular expressions” to locate content, but rather discloses pre-selection of a specific section of a web page such as “headlines only” or “associated stories.” As a result of this fundamentally different approach, one advantage of the claimed invention is the ability to quickly locate desired content on a web page when the content has changed or moved.

Before discussing the merits of the Office Action, Applicants wish to demonstrate how use of “regular expressions” by the claimed invention highlights the novelty of Applicants’ invention. A “regular expression” is a special text string used for describing a search pattern. In computer programming, regular expressions utilize a powerful and complex syntax to find and match particular portions of textual sources. For example, the following regular expression will find and match any email address contained within a textual source:

`“\b[A-Z0-9._%+-]+@[A-Z0-9.-]+\.[A-Z]{2,4}\b”`

So, if “mickymouse@disney.com” were listed within a webpage, this regular expression would find and match it. Likewise, a very similar regular expression created by replacing the first “\b” with “^” and the last one with “\$” can be used by a computer programmer to check whether the user entered a properly formatted email address into a form field. Thus, in just one line of text, whether that code is written in any computer language such as Perl, PHP, Java, or C#, regular expressions allow computer programmers to customize search patterns that find and match any recognizable pattern within a textual source such as a document or web page.

The specification details the importance of regular expressions and their search capabilities for the claimed invention. (Specification, ¶¶ 20-22, 32.) The regular expression for the claimed invention is created in a “descriptor file.” (Specification, ¶ 22.) To create a

descriptor file, and therefore a respective regular expression, the user pre-defines desired content by using the “clipping client” to draw a box around and select the area of the web page that the user desires. (Specification, ¶¶ 20-22; Fig. 2.) An example of the regular expression created with the clipping client for the weather information described in the Specification includes:

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Regular_expression=WEB SERVICES: (.+) Forecast FOUR-DAY
FORECAST (.backslash.S+) (.backslash.S+) HI GH
(.backslash.S+) F (.backslash.S+) C LOW (.backslash.S+) F
(.backslash.S+) C (.backslash.S+) (.backslash.S+) HIGH
(.backslash.S+) F (.backslash.S+) C LOW (.backslash.S+) ) F
(.backslash.S+) C (.backslash.S+) (.backslash.S+) HIGH
(.backslash.S+) F (.backslash.S+) C LOW (.backslash.S+) F
(.backslash.S+) C (.backslash.S+) (.backslash.S+) HIG H
(.backslash.S+) F (.backslash.S+) C LOW (.backslash.S+) F
(.backslash.S+) C WEATHER MAPS RADAR (.+) Forecast
CURRENT C ONDITIONS (.+) !local!, (.backslash.S+)
(.backslash.S+) (.+) Temp: (.backslash.S+) F, (.backslash.S+) C
Rel. Humidity: ( .backslash.S+) Wind: (.+) Pressure: (.+) Sunrise:
(.+) Sunset: (.+)
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(Specification, ¶ 22; Table 1.) The clipping client’s flexibility in this regard is important. By giving the user the ability to choose (or exclude) items of interest, the clipping client allows a user to filter out items on the web page that are not of interest (i.e., non-interest items).

(Specification, ¶ 21.) Thus, it is possible to filter out non-interest items such as advertisements and links. (Specification, ¶ 21.) Further, any corresponding regular expression created from such a selection will reflect the user’s desire to exclude non-interest items. This is because the regular expression’s syntax will match only the portion of the web page that the user selected. (Specification, Table 1.) Thus, the clipping client and descriptor file, housing the respective regular expression, work together to allow the claimed invention to later find and match only the user’s pre-defined desired content on a web page. (Specification, ¶ 31.)

To retrieve the user’s pre-defined desired content from the web page, the claimed invention’s “content extraction agent” uses the descriptor file to locate the relevant web page and the regular expression to pinpoint the specific content. (Specification, ¶ 31.) The content

extraction agent uses the regular expression to properly extract the desired content from the web page for the information requested by the user. (Specification, ¶ 31.)

Web sites are dynamic and it is not uncommon for web site designs or formats to change or for content to be moved one from location to another. Thus, an important feature of the claimed invention provided by use of regular expressions is the ability to find user-desired information that has changed location or format on the web page. (Specification, ¶ 32.) Through the use of regular expressions, the claimed invention still finds and matches the user-desired content regardless of whether the format of the web page has changed or the desired content has been moved. (Specification, ¶ 32.)

Applicants have amended the claims to emphasize this important feature. Specifically, independent claims 32, 53, and 63 have been amended to include:

A **regular expression** based on said pre-defined portion of said pre-selected web site and said named object, said regular expression corresponding to said content of said information to be retrieved.

U.S. Patent No. 6,718, 015 to Berstis (“the *Berstis* patent”) does not disclose use of regular expressions. Thus, a user of the invention disclosed by the *Berstis* patent cannot filter out non-interest items of particular parts of a web page. Rather, users must continuously instruct the *Berstis* invention to navigate to specific sections of a web page to obtain desired content or avoid non-interest items. (Col. 7, ll. 66-67.) This is because the *Berstis* invention lacks the use of regular expressions. Instead of regular expressions, the *Berstis* invention strips and removes all computer related tags in order to obtain readable text. (Col. 8, ll. 17-62; col. 17, ll. 49-62.) This is done so that the text can be read back to the user. The user then can navigate to the next desired location, but must give the *Berstis* invention specific instruction to do so. (Col. 8, ll. 54-57.) Because the *Berstis* invention removes computer related tags and reads back all of the remaining text, users must continuously navigate through non-interest text or links. Thus, after each selection in the navigation process, if the web page content contains any non-interest items

such as advertisements or links, a user of the *Bertis* invention would have to navigate and wade through these superfluous materials to reach desired content. But, the *Berstis* invention does mitigate this hassle to a small degree by allowing the user to pre-select the starting point. (Col. 5, ll. 5-7, 10-14, 32-33, 64-67.) However, while this may eliminate some non-interest items by skipping over sections of the web page that the *Berstis* invention will not read, the *Berstis* invention still reads non-interest items found along the navigation sequence from the pre-selected point where reading begins. (Col. 6, ll. 3-16.) Thus, the *Berstis* invention lacks the flexibility that the clipping content of the claimed invention provides, allowing a user to select pre-defined interest items only by drawing a box around and selecting desired content. A *Berstis* user only can specify the starting point where navigation begins and thus likely must wade through non-interest items. (Col. 5, ll. 64-67; col. 6, ll. 1-2.)

Moreover, the *Berstis* invention lacks the ability to find user-desired information that has changed location or format on a webpage. Again, this is because the *Berstis* invention lacks the use of regular expressions. Regular expressions have the ability to find and match the user-desired content regardless of whether the target web page changes and the desired content is moved. Given that the *Berstis* invention lacks regular expressions, if content changes or moves on a web page, a *Berstis* user will fail to find the desired content. For example, if a *Berstis* user selects a desired section of a web page to be read (e.g., “associated articles”) and the content on that web page is later changed or moved, the next time the user selects the “associated articles” web page section the *Berstis* invention will navigate to and begin reading the same section which now has different content. Again, this is because the “associated articles” section has been changed or moved. In this manner, the *Berstis* invention lacks the ability to find and match changes to a web page. Thus, a *Berstis* user would have to re-navigate the entire web page to re-find the desired section (e.g., the “associated articles”). However, the claimed invention solves this issue through regular expressions. The claimed invention will find and match the desired content irrespective of its location. In fact, even if the content is changed or moved, a user of the claimed invention would likely be unaware. Again, this is because of the claimed invention’s

ability to automatically find and match changed or moved content through the use of regular expressions.

CONCLUSION

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

FOLEY & LARDNER LLP
Customer Number: 27433
Telephone: (312) 832-5113
Facsimile: (312) 832-4700

Scott R. Kaspar
Attorney for Applicant
Registration No. 54,583